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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,770	04/03/2001	Jan Abildgaard Pedersen	P07143US00/M	4897

881 7590 01/14/2005

STITES & HARBISON PLLC  
1199 NORTH FAIRFAX STREET  
SUITE 900  
ALEXANDRIA, VA 22314

EXAMINER
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PENDLETON, BRIAN T

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/806,770

**Applicant(s)**

PEDERSEN ET AL.

**Examiner**

Brian T. Pendleton

**Art Unit**

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 2-4,6-12,16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 13 is/are rejected.
- 7) ☒ Claim(s) 5,14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of the species of figure 5 in the reply filed on 9/9/04 is acknowledged. The traversal is on the ground(s) that there is a common special technical feature, that the frequency response of a loudspeaker is changed according to the radiation resistance calculated from the loudspeaker. This is not found persuasive because the implementation of how the radiation resistance is calculated is claimed in various ways, all of which are species. In addition, claim 1 is not a generic claim linking all the dependent claims, in fact, claim 1 is directed toward a one microphone system with a carrier that enables the sound pressure to be measured from two different points, whereas some of the dependent claims recite the use of two microphones (such as claims 7-12). In no respect can a claim with a strict structure having one microphone read on claims having two or more microphones with different structures. Finally, Applicant argues that claims 1, 5, 7, 11, 13, 14, 15 are readable on figure 5, which is not persuasive to the Examiner. Specifically, claims 7 and 11 recite two microphones which is contrary to the structure of figure 5 which uses one stationary microphone and a retractable sleeve member 36. Examiner did not consider figure 5 as one of the species, but after reconsideration, figure 5 is deemed a species of which claims 1, 5, and 13-15 read on. The merits of the invention are based on examination of figure 5.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Al-Ali et al. Al-Ali et al teach a loudspeaker system having sensor means 50 (microphone) for determining the acoustic pressure of the loudspeaker diaphragm 24. Signal processing unit 54 provides a control signal u to amplifier 44 for adjusting the performance of the loudspeaker in an adaptive manner. Via the microphone bracket 52 (carrier means), the microphone can be exposed to sound pressure in at least two points. The microphone determines the radiation resistance because the sound pressure picked up by microphone 50 expresses radiation resistance. Claim 1 is met. It is noted that Applicant has not claimed the feature that the radiation resistance is determined by detecting the sound pressure in at least two points differently spaced. The claim only states that the sensor and carrier means enable the microphone to be exposed to sound pressure in at least two points.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Al-Ali et al. Al-Ali et al teach a loudspeaker having a controller, microphone for measuring sound pressure of a speaker diaphragm, and signal processing unit whereby the microphone can be positioned to detect sound pressure in two different locations. Al-Ali et al do not teach a first measuring point 1-5 cm from the diaphragm and the second measuring point 3-20 cm from the diaphragm.

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Nevertheless, those ranges were obvious design choices for one of ordinary skill in the art. An artisan would have realized the wavelength of the audio sounds reproduced and positioned the microphone accordingly.

***Allowable Subject Matter***

Claims 5, 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kyono, US Patent 6,807,279; Bonneville, US Patent 5,729,611.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509.

The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Le Huyen can be reached on (703) 305-4844. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton  
Examiner  
Art Unit 2644

